

AMENDMENTS TO THE SPECIFICATION

Please amend the identified paragraphs as follows:

Page 2, Line 11

According to prior art methodologies the content identification of content services and applications are based on identifying the respective URL addresses of the specific content service. The URL is typically identified by a prefix (e.g. <http://www.somesite.com/news/>~~*~~ "www.somesite.com/news/" could identify the sports section of a web-site). This method has serious shortcomings given that web services today frequently utilize dynamic URL's that are mechanically produced. Such automatic URL's frequently provide no hint as to the specific application being used (e.g. <http://www.somesite.com/ad6eb37433a9083ac?uid=452372> "www.somesite.com/ad6eb37433a9083ac?uid=452372" may identify any content service within the somesite.com website), hence differentiation between different services residing on the same host is frequently impossible. Furthermore with URL-based identification methodology, whenever the URL address structure is changed or the hosting location of the service is changed, the proxy server cannot find the correlation between old and new URL representations. Also, if the proxy contains configurations that identify the service e.g. by URL or URL prefix, these configurations may not be sufficient for identifying the service or specific sections within the service, as the URL may have no unique pattern which identifies it. For this reason, this methodology is not suitable for content providers implementing dynamic URL techniques. The dynamic URL consists of changing code numbers, that only the content provider itself can identify in real-time, hence it is impossible for proxy servers to relate the dynamic URL codes (when visited by the client) to the specific content or service.

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Referring to Fig. 1 of the drawings, it will be seen that a mobile telephone device ~~(A)~~ 10 is connected through a cellular network ~~(B)~~ 20 to the designated server ~~(C)~~ 30 (hereinafter called

“the smart proxy server”). The smart proxy server functions as an intermediary gateway between the user mobile device and the Internet content providers (40) (hereinafter called “content servers”), which contain data available for user access.

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One of the preferred utilities of the smart proxy concerns the proxy server's ability to provide identification of content services even when the URL addresses are dynamic as opposed to prior art proxy servers which are only able to provide such services where the URLs are permanent addresses. ~~As illustrated in~~

~~Fig. 4, it is suggested to use the~~ 3 shows the data flow according to the present invention. On user mobile wireless device 300, the user selects next hyperlink 301. In response, the mobile device sends the request 302. The proxy server 310 comprises a basic proxy and a smart proxy 330 (also hereinafter: server content analysis module). In operation, basic proxy 320 intercepts user's communication with the internet 321. The smart proxy 330 analyzes request for identifying selected hyperlink 331, checks previous recorded successive hyperlinks titles sequences for identifying content location 332, compares content location with predefined content location of titles sequences 333, identify content service 334. The basic proxy 320, upon request of a required page 322, receives required page from content server 323 and transmits required page to the user 324, which receives the downloaded page 303. The smart proxy in response parses the downloaded page 335 and records hyperlink titles of downloaded page 336.

In embodiments, smart proxy 330 (proxy server content analysis module) is arranged for parsing the markup content and identifying embedded hyperlinks and respective titles. The smart proxy server tracks user surfing course by recording user's hyperlink selection in the short-term memory of the proxy. Thus, the proxy server can identify the current location of the mobile user within the content provider site on the basis of mobile users' recent navigation track. For example, if the proxy server is required to restrict unauthorized users from accessing a pornographic content page, the server checks user recorded navigation track of hyperlink titles, (e.g. Yahoo --> Society --> relationship --> pornography) and compares this titles' sequence to pre-defined sequence of titles that were defined by the proxy operator. If the sequence of

hyperlink titles of the user surfing-track is similar (or equivalent) to one of the predefined sequences, indicating unauthorized access, the proxy server rejects user last request. This capability of identifying user content/service location within content provider site can be utilized for any service of the proxy server which is associated with the content server processing, such as the mediating services between the content server and back-end services. Analyzing user context enables activation of such back-end services based on user-surfing context. For example if the user selected a menu category which requires payment, the proxy server can identify this user's request as a billable request and report the transaction to the necessary back-end server for the user to be billed.